Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

August 22, 2016

Matt Faust
Bristol Environmental Remediation Services, LLC
111 W. 16th Avenue
Anchorage, AK 99501

RE: Project: Tower, WI
Pace Project No.: 10358347

Dear Matt Faust:
Enclosed are the analytical results for sample(s) received by the laboratory on August 09, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Shawn Davis
shawn.davis@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
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# CERTIFICATIONS

Project: Tower, WI
Pace Project No.: 10358347

**Minnesota Certification IDs**

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

**Montana Certification IDs**

150 N. 9th Street, Billings, MT 59101
A2LA Certification #: 3590.01
EPA Region 8 Certification #: 8TMS-L
Idaho Certification #: MT00012
Minnesota Dept of Health Certification #: 030-999-442
Montana Certification #: MT CERT0040
North Dakota Dept. Of Health #: R-209
Washington Department of Ecology #: C993

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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## SAMPLE SUMMARY

Project: Tower, WI
Pace Project No.: 10358347

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **10358347001** | **1608TOWERMW16** | Water | 08/08/16 10:55 | 08/09/16 09:30 |
| **10358347002** | **1608TOWERMW16D** | Water | 08/08/16 13:00 | 08/09/16 09:30 |
| **10358347003** | **1608TOWERMW18D** | Water | 08/08/16 13:30 | 08/09/16 09:30 |

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: Tower, WI
Pace Project No.: 10358347

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **10358347001** | **1608TOWERMW16** | EPA 6020B | TT3 | 9 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| | | SM 2510B | CAC | 1 | PASI-MT |
| | | SM 4500-H+B | CAC | 1 | PASI-MT |
| | | SM 4500-S2-D | JME | 1 | PASI-MT |
| | | SM 4500-S H | VRJ | 1 | PASI-MT |
| | | SM 4500-NO3 H | DCL | 2 | PASI-M |
| | | ASTM D516 | KEO | 1 | PASI-M |
| | | SM 4500-NO2 B | KEO | 1 | PASI-M |
| **10358347002** | **1608TOWERMW16D** | EPA 6020B | TT3 | 9 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| | | SM 2510B | CAC | 1 | PASI-MT |
| | | SM 4500-H+B | CAC | 1 | PASI-MT |
| | | SM 4500-S2-D | JME | 1 | PASI-MT |
| | | SM 4500-S H | VRJ | 1 | PASI-MT |
| | | SM 4500-NO3 H | DCL | 2 | PASI-M |
| | | ASTM D516 | KEO | 1 | PASI-M |
| | | SM 4500-NO2 B | KEO | 1 | PASI-M |
| **10358347003** | **1608TOWERMW18D** | EPA 6020B | TT3 | 9 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| | | SM 2510B | CAC | 1 | PASI-MT |
| | | SM 4500-H+B | CAC | 1 | PASI-MT |
| | | SM 4500-S2-D | JME | 1 | PASI-MT |
| | | SM 4500-S H | VRJ | 1 | PASI-MT |
| | | SM 4500-NO3 H | DCL | 2 | PASI-M |
| | | ASTM D516 | KEO | 1 | PASI-M |
| | | SM 4500-NO2 B | KEO | 1 | PASI-M |

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## SUMMARY OF DETECTION

Project: Tower, WI
Pace Project No.: 10358347

| Lab Sample ID / Method | Client Sample ID / Parameters | Result | Units | Report Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| **10358347001** | **1608TOWERMW16** | | | | | |
| EPA 6020B | Arsenic | 1.4 | ug/L | 0.50 | 08/19/16 13:58 | |
| EPA 6020B | Barium | 181 | ug/L | 0.30 | 08/19/16 13:58 | |
| EPA 6020B | Chromium | 7.3 | ug/L | 0.50 | 08/19/16 13:58 | |
| EPA 6020B | Iron | 17000 | ug/L | 50.0 | 08/19/16 13:58 | |
| EPA 6020B | Lead | 1.7 | ug/L | 0.10 | 08/19/16 13:58 | |
| EPA 6020B | Manganese | 1760 | ug/L | 5.0 | 08/19/16 14:35 | |
| SM 2510B | Specific Conductance | 662 | umhos/cm | 10.0 | 08/16/16 15:00 | |
| SM 4500-H+B | pH at 25 Degrees C | 6.6 | Std. Units | 0.10 | 08/15/16 18:48 | H6 |
| ASTM D516 | Sulfate | 7.2 | mg/L | 3.5 | 08/12/16 08:34 | |
| **10358347002** | **1608TOWERMW16D** | | | | | |
| EPA 6020B | Arsenic | 0.55 | ug/L | 0.50 | 08/19/16 14:01 | |
| EPA 6020B | Barium | 173 | ug/L | 0.30 | 08/19/16 14:01 | |
| EPA 6020B | Chromium | 2.5 | ug/L | 0.50 | 08/19/16 14:01 | |
| EPA 6020B | Iron | 7220 | ug/L | 50.0 | 08/19/16 14:01 | |
| EPA 6020B | Lead | 0.41 | ug/L | 0.10 | 08/19/16 14:01 | |
| EPA 6020B | Manganese | 2260 | ug/L | 5.0 | 08/19/16 14:37 | |
| SM 2510B | Specific Conductance | 1020 | umhos/cm | 10.0 | 08/16/16 15:01 | |
| SM 4500-H+B | pH at 25 Degrees C | 7.1 | Std. Units | 0.10 | 08/15/16 18:52 | H6 |
| **10358347003** | **1608TOWERMW18D** | | | | | |
| EPA 6020B | Arsenic | 0.58 | ug/L | 0.50 | 08/19/16 14:03 | |
| EPA 6020B | Barium | 172 | ug/L | 0.30 | 08/19/16 14:03 | |
| EPA 6020B | Chromium | 2.3 | ug/L | 0.50 | 08/19/16 14:03 | |
| EPA 6020B | Iron | 7200 | ug/L | 50.0 | 08/19/16 14:03 | |
| EPA 6020B | Lead | 0.42 | ug/L | 0.10 | 08/19/16 14:03 | |
| EPA 6020B | Manganese | 2250 | ug/L | 5.0 | 08/20/16 16:10 | |
| SM 2510B | Specific Conductance | 1030 | umhos/cm | 10.0 | 08/16/16 15:02 | |
| SM 4500-H+B | pH at 25 Degrees C | 7.4 | Std. Units | 0.10 | 08/15/16 19:07 | H6 |
| SM 4500-S2-D | Sulfide | 0.40 | mg/L | 0.10 | 08/10/16 14:42 | |
| SM 4500-S H | Sulfide as H2S (calc) | 0.11 | mg/L | 0.10 | 08/16/16 16:40 | AL |

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# PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

**Method:** **EPA 6020B**
**Description:** 6020B MET ICPMS
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** August 22, 2016

**General Information:**
3 samples were analyzed for EPA 6020B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**
The samples were prepared in accordance with EPA 3020 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 429937

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10358621007

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2342797)
  - Iron
  - Manganese
- MSD (Lab ID: 2342798)
  - Iron

**Additional Comments:**

Analyte Comments:

QC Batch: 429937

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 2342797)
  - Iron

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

**Method:** **EPA 6020B**
**Description:** 6020B MET ICPMS
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** August 22, 2016

Analyte Comments:

QC Batch: 429937

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 2342797)
  - Manganese
- MSD (Lab ID: 2342798)
  - Iron
  - Manganese

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# PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

**Method:** **EPA 245.1**
**Description:** 245.1 Mercury
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** August 22, 2016

**General Information:**
3 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

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# PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

**Method:** **SM 2510B**
**Description:** 2510B Specific Conductance
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** August 22, 2016

**General Information:**
3 samples were analyzed for SM 2510B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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# PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

**Method:** **SM 4500-H+B**
**Description:** 4500H+ pH, Electrometric
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** August 22, 2016

**General Information:**
3 samples were analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA required holding time.
- 1608TOWERMW16 (Lab ID: 10358347001)
- 1608TOWERMW16D (Lab ID: 10358347002)
- 1608TOWERMW18D (Lab ID: 10358347003)

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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# PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

**Method:** **SM 4500-S2-D**
**Description:** 4500S2D Sulfide Water
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** August 22, 2016

**General Information:**
3 samples were analyzed for SM 4500-S2-D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

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# PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

**Method:** **SM 4500-S H**
**Description:** 4500S2H Sulfide as H2S Calc
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** August 22, 2016

**General Information:**
3 samples were analyzed for SM 4500-S H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**
All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**
All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

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# PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

**Method:** **SM 4500-NO3 H**
**Description:** SM4500NO3-H, NO2 + NO3 pres.
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** August 22, 2016

**General Information:**
3 samples were analyzed for SM 4500-NO3 H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

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# PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

**Method:** **ASTM D516**
**Description:** ASTM D516 Sulfate Water
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** August 22, 2016

**General Information:**
3 samples were analyzed for ASTM D516. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 430254

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10358170001,10358349004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2340924)
  - Sulfate
- MSD (Lab ID: 2340925)
  - Sulfate

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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# PROJECT NARRATIVE

Project: Tower, WI
Pace Project No.: 10358347

**Method:** **SM 4500-NO2 B**
**Description:** SM4500NO2-B, Nitrite, unpres
**Client:** Bristol Environmental Remediation Services, LLC
**Date:** August 22, 2016

**General Information:**
3 samples were analyzed for SM 4500-NO2 B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**
The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**
All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**
All criteria were within method requirements with any exceptions noted below.

**Method Blank:**
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

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## ANALYTICAL RESULTS

Project: Tower, WI
Pace Project No.: 10358347

**Sample: 1608TOWERMW16** **Lab ID: 10358347001** Collected: 08/08/16 10:55 Received: 08/09/16 09:30 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3020 | | | | | | | | |
| Arsenic | **1.4** | ug/L | 0.50 | 0.091 | 1 | 08/18/16 16:36 | 08/19/16 13:58 | 7440-38-2 | |
| Barium | **181** | ug/L | 0.30 | 0.019 | 1 | 08/18/16 16:36 | 08/19/16 13:58 | 7440-39-3 | |
| Cadmium | ND | ug/L | 0.080 | 0.013 | 1 | 08/18/16 16:36 | 08/19/16 13:58 | 7440-43-9 | |
| Chromium | **7.3** | ug/L | 0.50 | 0.14 | 1 | 08/18/16 16:36 | 08/19/16 13:58 | 7440-47-3 | |
| Iron | **17000** | ug/L | 50.0 | 18.5 | 1 | 08/18/16 16:36 | 08/19/16 13:58 | 7439-89-6 | |
| Lead | **1.7** | ug/L | 0.10 | 0.012 | 1 | 08/18/16 16:36 | 08/19/16 13:58 | 7439-92-1 | |
| Manganese | **1760** | ug/L | 5.0 | 1.3 | 10 | 08/18/16 16:36 | 08/19/16 14:35 | 7439-96-5 | |
| Selenium | ND | ug/L | 0.50 | 0.13 | 1 | 08/18/16 16:36 | 08/19/16 13:58 | 7782-49-2 | |
| Silver | ND | ug/L | 0.50 | 0.0092 | 1 | 08/18/16 16:36 | 08/19/16 13:58 | 7440-22-4 | B |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| Mercury | ND | ug/L | 0.072 | 0.031 | 1 | 08/11/16 21:00 | 08/14/16 17:59 | 7439-97-6 | |
| **2510B Specific Conductance** | Analytical Method: SM 2510B | | | | | | | | |
| Specific Conductance | **662** | umhos/cm | 10.0 | 10.0 | 1 | | 08/16/16 15:00 | | |
| **4500H+ pH, Electrometric** | Analytical Method: SM 4500-H+B | | | | | | | | |
| pH at 25 Degrees C | **6.6** | Std. Units | 0.10 | 0.10 | 1 | | 08/15/16 18:48 | | H6 |
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2-D | | | | | | | | |
| Sulfide | ND | mg/L | 0.10 | 0.011 | 1 | | 08/10/16 14:44 | | |
| **4500S2H Sulfide as H2S Calc** | Analytical Method: SM 4500-S H | | | | | | | | |
| Sulfide as H2S (calc) | ND | mg/L | 0.10 | 0.020 | 1 | | 08/16/16 16:40 | | AL |
| **SM4500NO3-H, NO2 + NO3 pres.** | Analytical Method: SM 4500-NO3 H | | | | | | | | |
| Nitrate as N | ND | mg/L | 0.058 | 0.018 | 1 | | 08/12/16 13:23 | 14797-55-8 | |
| Nitrogen, NO2 plus NO3 | ND | mg/L | 0.17 | 0.050 | 1 | | 08/12/16 13:23 | | |
| **ASTM D516 Sulfate Water** | Analytical Method: ASTM D516 | | | | | | | | |
| Sulfate | **7.2** | mg/L | 3.5 | 1.0 | 1 | | 08/12/16 08:34 | 14808-79-8 | |
| **SM4500NO2-B, Nitrite, unpres** | Analytical Method: SM 4500-NO2 B | | | | | | | | |
| Nitrite as N | ND | mg/L | 0.012 | 0.0036 | 1 | | 08/10/16 09:17 | 14797-65-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## ANALYTICAL RESULTS

Project: Tower, WI
Pace Project No.: 10358347

**Sample: 1608TOWERMW16D** **Lab ID: 10358347002** Collected: 08/08/16 13:00 Received: 08/09/16 09:30 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3020 | | | | | | | | |
| Arsenic | **0.55** | ug/L | 0.50 | 0.091 | 1 | 08/18/16 16:36 | 08/19/16 14:01 | 7440-38-2 | |
| Barium | **173** | ug/L | 0.30 | 0.019 | 1 | 08/18/16 16:36 | 08/19/16 14:01 | 7440-39-3 | |
| Cadmium | ND | ug/L | 0.080 | 0.013 | 1 | 08/18/16 16:36 | 08/19/16 14:01 | 7440-43-9 | |
| Chromium | **2.5** | ug/L | 0.50 | 0.14 | 1 | 08/18/16 16:36 | 08/19/16 14:01 | 7440-47-3 | |
| Iron | **7220** | ug/L | 50.0 | 18.5 | 1 | 08/18/16 16:36 | 08/19/16 14:01 | 7439-89-6 | |
| Lead | **0.41** | ug/L | 0.10 | 0.012 | 1 | 08/18/16 16:36 | 08/19/16 14:01 | 7439-92-1 | |
| Manganese | **2260** | ug/L | 5.0 | 1.3 | 10 | 08/18/16 16:36 | 08/19/16 14:37 | 7439-96-5 | |
| Selenium | ND | ug/L | 0.50 | 0.13 | 1 | 08/18/16 16:36 | 08/19/16 14:01 | 7782-49-2 | |
| Silver | ND | ug/L | 0.50 | 0.0092 | 1 | 08/18/16 16:36 | 08/19/16 14:01 | 7440-22-4 | B |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| Mercury | ND | ug/L | 0.072 | 0.031 | 1 | 08/11/16 21:00 | 08/14/16 18:01 | 7439-97-6 | |
| **2510B Specific Conductance** | Analytical Method: SM 2510B | | | | | | | | |
| Specific Conductance | **1020** | umhos/cm | 10.0 | 10.0 | 1 | | 08/16/16 15:01 | | |
| **4500H+ pH, Electrometric** | Analytical Method: SM 4500-H+B | | | | | | | | |
| pH at 25 Degrees C | **7.1** | Std. Units | 0.10 | 0.10 | 1 | | 08/15/16 18:52 | | H6 |
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2-D | | | | | | | | |
| Sulfide | ND | mg/L | 0.10 | 0.011 | 1 | | 08/10/16 14:36 | | |
| **4500S2H Sulfide as H2S Calc** | Analytical Method: SM 4500-S H | | | | | | | | |
| Sulfide as H2S (calc) | ND | mg/L | 0.10 | 0.020 | 1 | | 08/16/16 16:40 | | AL |
| **SM4500NO3-H, NO2 + NO3 pres.** | Analytical Method: SM 4500-NO3 H | | | | | | | | |
| Nitrate as N | ND | mg/L | 0.058 | 0.018 | 1 | | 08/12/16 13:27 | 14797-55-8 | |
| Nitrogen, NO2 plus NO3 | ND | mg/L | 0.17 | 0.050 | 1 | | 08/12/16 13:27 | | |
| **ASTM D516 Sulfate Water** | Analytical Method: ASTM D516 | | | | | | | | |
| Sulfate | ND | mg/L | 3.5 | 1.0 | 1 | | 08/12/16 08:34 | 14808-79-8 | |
| **SM4500NO2-B, Nitrite, unpres** | Analytical Method: SM 4500-NO2 B | | | | | | | | |
| Nitrite as N | ND | mg/L | 0.012 | 0.0036 | 1 | | 08/10/16 09:17 | 14797-65-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## ANALYTICAL RESULTS

Project: Tower, WI
Pace Project No.: 10358347

**Sample: 1608TOWERMW18D** **Lab ID: 10358347003** Collected: 08/08/16 13:30 Received: 08/09/16 09:30 Matrix: Water

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6020B MET ICPMS** | Analytical Method: EPA 6020B Preparation Method: EPA 3020 | | | | | | | | |
| Arsenic | **0.58** | ug/L | 0.50 | 0.091 | 1 | 08/18/16 16:36 | 08/19/16 14:03 | 7440-38-2 | |
| Barium | **172** | ug/L | 0.30 | 0.019 | 1 | 08/18/16 16:36 | 08/19/16 14:03 | 7440-39-3 | |
| Cadmium | ND | ug/L | 0.080 | 0.013 | 1 | 08/18/16 16:36 | 08/19/16 14:03 | 7440-43-9 | |
| Chromium | **2.3** | ug/L | 0.50 | 0.14 | 1 | 08/18/16 16:36 | 08/19/16 14:03 | 7440-47-3 | |
| Iron | **7200** | ug/L | 50.0 | 18.5 | 1 | 08/18/16 16:36 | 08/19/16 14:03 | 7439-89-6 | |
| Lead | **0.42** | ug/L | 0.10 | 0.012 | 1 | 08/18/16 16:36 | 08/19/16 14:03 | 7439-92-1 | |
| Manganese | **2250** | ug/L | 5.0 | 1.3 | 10 | 08/18/16 16:36 | 08/20/16 16:10 | 7439-96-5 | |
| Selenium | ND | ug/L | 0.50 | 0.13 | 1 | 08/18/16 16:36 | 08/19/16 14:03 | 7782-49-2 | |
| Silver | ND | ug/L | 0.50 | 0.0092 | 1 | 08/18/16 16:36 | 08/19/16 14:03 | 7440-22-4 | B |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| Mercury | ND | ug/L | 0.072 | 0.031 | 1 | 08/11/16 21:00 | 08/14/16 18:03 | 7439-97-6 | |
| **2510B Specific Conductance** | Analytical Method: SM 2510B | | | | | | | | |
| Specific Conductance | **1030** | umhos/cm | 10.0 | 10.0 | 1 | | 08/16/16 15:02 | | |
| **4500H+ pH, Electrometric** | Analytical Method: SM 4500-H+B | | | | | | | | |
| pH at 25 Degrees C | **7.4** | Std. Units | 0.10 | 0.10 | 1 | | 08/15/16 19:07 | | H6 |
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2-D | | | | | | | | |
| Sulfide | **0.40** | mg/L | 0.10 | 0.011 | 1 | | 08/10/16 14:42 | | |
| **4500S2H Sulfide as H2S Calc** | Analytical Method: SM 4500-S H | | | | | | | | |
| Sulfide as H2S (calc) | **0.11** | mg/L | 0.10 | 0.020 | 1 | | 08/16/16 16:40 | | AL |
| **SM4500NO3-H, NO2 + NO3 pres.** | Analytical Method: SM 4500-NO3 H | | | | | | | | |
| Nitrate as N | ND | mg/L | 0.058 | 0.018 | 1 | | 08/12/16 13:28 | 14797-55-8 | |
| Nitrogen, NO2 plus NO3 | ND | mg/L | 0.17 | 0.050 | 1 | | 08/12/16 13:28 | | |
| **ASTM D516 Sulfate Water** | Analytical Method: ASTM D516 | | | | | | | | |
| Sulfate | ND | mg/L | 3.5 | 1.0 | 1 | | 08/12/16 08:34 | 14808-79-8 | |
| **SM4500NO2-B, Nitrite, unpres** | Analytical Method: SM 4500-NO2 B | | | | | | | | |
| Nitrite as N | ND | mg/L | 0.012 | 0.0036 | 1 | | 08/10/16 09:17 | 14797-65-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 429746 Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2338266 Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Mercury | ug/L | ND | 0.072 | 08/14/16 17:36 | |

LABORATORY CONTROL SAMPLE: 2338267

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | 5 | 4.6 | 91 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2338268 2338269

| Parameter | Units | 10358348001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.00020 mg/L | 5 | 5 | 4.3 | 4.4 | 87 | 87 | 70-130 | 0 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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(612)607-1700

## QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 429937 Analysis Method: EPA 6020B
QC Batch Method: EPA 3020 Analysis Description: 6020B Water UPD5
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2339230 Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Arsenic | ug/L | ND | 0.50 | 08/19/16 14:16 | |
| Barium | ug/L | ND | 0.30 | 08/19/16 14:16 | |
| Cadmium | ug/L | ND | 0.080 | 08/19/16 14:16 | |
| Chromium | ug/L | ND | 0.50 | 08/19/16 14:16 | |
| Iron | ug/L | ND | 50.0 | 08/19/16 14:16 | |
| Lead | ug/L | ND | 0.10 | 08/19/16 14:16 | |
| Manganese | ug/L | ND | 0.50 | 08/19/16 14:16 | |
| Selenium | ug/L | ND | 0.50 | 08/20/16 16:08 | |
| Silver | ug/L | ND | 0.50 | 08/19/16 14:16 | |

LABORATORY CONTROL SAMPLE: 2339231

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Arsenic | ug/L | 100 | 89.0 | 89 | 80-120 | |
| Barium | ug/L | 100 | 102 | 102 | 80-120 | |
| Cadmium | ug/L | 100 | 101 | 101 | 80-120 | |
| Chromium | ug/L | 100 | 103 | 103 | 80-120 | |
| Iron | ug/L | 2000 | 1850 | 92 | 80-120 | |
| Lead | ug/L | 100 | 103 | 103 | 80-120 | |
| Manganese | ug/L | 100 | 100 | 100 | 80-120 | |
| Selenium | ug/L | 100 | 92.5 | 92 | 80-120 | |
| Silver | ug/L | 50 | 47.2 | 94 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2342797 2342798

| Parameter | Units | 10358621007 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ug/L | 0.43J | 100 | 100 | 92.4 | 86.1 | 92 | 86 | 75-125 | 7 | 20 | |
| Barium | ug/L | 299 | 100 | 100 | 399 | 401 | 100 | 102 | 75-125 | 1 | 20 | |
| Cadmium | ug/L | <0.013 | 100 | 100 | 101 | 101 | 101 | 101 | 75-125 | 1 | 20 | |
| Chromium | ug/L | 4.4 | 100 | 100 | 105 | 105 | 101 | 101 | 75-125 | 0 | 20 | |
| Iron | ug/L | 65700 | 2000 | 2000 | 60200 | 56400 | -274 | -466 | 75-125 | 7 | 20 | E,M1 |
| Lead | ug/L | 0.41 | 100 | 100 | 100 | 100 | 100 | 100 | 75-125 | 0 | 20 | |
| Manganese | ug/L | 1580 | 100 | 100 | 1660 | 1680 | 73 | 100 | 75-125 | 2 | 20 | E,M1 |
| Selenium | ug/L | 0.19J | 100 | 100 | 94.1 | 83.7 | 94 | 83 | 75-125 | 12 | 20 | |
| Silver | ug/L | 0.013J | 50 | 50 | 45.6 | 41.9 | 91 | 84 | 75-125 | 9 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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(612)607-1700

## QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 430853 Analysis Method: SM 2510B
QC Batch Method: SM 2510B Analysis Description: 2510B Specific Conductance
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2343818 Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Specific Conductance | umhos/cm | ND | 10.0 | 08/16/16 14:58 | |

LABORATORY CONTROL SAMPLE: 2343819

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Specific Conductance | umhos/cm | 1000 | 1010 | 101 | 90-110 | |

SAMPLE DUPLICATE: 2343820

| Parameter | Units | 10358347002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Specific Conductance | umhos/cm | 1020 | 1020 | 0 | 20 | |

SAMPLE DUPLICATE: 2343821

| Parameter | Units | 10358621007 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Specific Conductance | umhos/cm | 2100 | 2100 | 0 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 430697 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH
Associated Lab Samples: 10358347001, 10358347002, 10358347003

LABORATORY CONTROL SAMPLE: 2343119

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| pH at 25 Degrees C | Std. Units | 7 | 7.0 | 100 | 98-102 | H6 |

SAMPLE DUPLICATE: 2343120

| Parameter | Units | 10358347002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| pH at 25 Degrees C | Std. Units | 7.1 | 7.2 | 1 | 3 | H6 |

SAMPLE DUPLICATE: 2343121

| Parameter | Units | 10358621007 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| pH at 25 Degrees C | Std. Units | 6.5 | 6.4 | 0 | 3 | H6 |

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## REPORT OF LABORATORY ANALYSIS

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(612)607-1700

## QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 429845 Analysis Method: SM 4500-S2-D
QC Batch Method: SM 4500-S2-D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2338757 Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Sulfide | mg/L | ND | 0.10 | 08/10/16 14:24 | |

LABORATORY CONTROL SAMPLE: 2338758

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Sulfide | mg/L | .98 | 0.98 | 100 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2338759 2338760

| Parameter | Units | 10358288001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfide | mg/L | ND | .98 | .98 | 0.92 | 0.95 | 95 | 97 | 80-120 | 3 | 20 | |

SAMPLE DUPLICATE: 2338761

| Parameter | Units | 10358347001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Sulfide | mg/L | ND | ND | | 20 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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(612)607-1700

## QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 430242 Analysis Method: SM 4500-NO3 H
QC Batch Method: SM 4500-NO3 H Analysis Description: SM4500NO3-H, NO2 + NO3 pres.
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2340871 Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, NO2 plus NO3 | mg/L | ND | 0.17 | 08/12/16 12:59 | |

LABORATORY CONTROL SAMPLE: 2340872

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrogen, NO2 plus NO3 | mg/L | 2.5 | 2.5 | 99 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2340873 2340874

| Parameter | Units | 10357827002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, NO2 plus NO3 | mg/L | 8.45 | 2.5 | 2.5 | 10.9 | 10.8 | 97 | 93 | 80-120 | 1 | 30 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2340875 2340876

| Parameter | Units | 10357853006 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, NO2 plus NO3 | mg/L | ND | 2.5 | 2.5 | 2.5 | 2.4 | 98 | 95 | 80-120 | 2 | 30 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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(612)607-1700

## QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 430254 Analysis Method: ASTM D516
QC Batch Method: ASTM D516 Analysis Description: ASTM D516 Sulfate Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2340919 Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Sulfate | mg/L | ND | 3.5 | 08/12/16 08:23 | |

LABORATORY CONTROL SAMPLE & LCSD: 2340920 2340921

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | mg/L | 7.5 | 8.3 | 8.3 | 111 | 111 | 80-120 | 0 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2340922 2340923

| Parameter | Units | 10358170001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | mg/L | ND | 20 | 20 | 19.4 | 19.5 | 94 | 95 | 80-120 | 0 | 30 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2340924 2340925

| Parameter | Units | 10358349004 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | mg/L | 25.7 | 20 | 20 | 40.6 | 39.3 | 75 | 68 | 80-120 | 3 | 30 | M1 |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA

Project: Tower, WI
Pace Project No.: 10358347

QC Batch: 429639 Analysis Method: SM 4500-NO2 B
QC Batch Method: SM 4500-NO2 B Analysis Description: SM4500NO2-B, Nitrite, unpres
Associated Lab Samples: 10358347001, 10358347002, 10358347003

METHOD BLANK: 2337776 Matrix: Water
Associated Lab Samples: 10358347001, 10358347002, 10358347003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrite as N | mg/L | ND | 0.012 | 08/10/16 19:17 | |

LABORATORY CONTROL SAMPLE: 2337777

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrite as N | mg/L | .3 | 0.31 | 102 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2337778 2337779

| Parameter | Units | 10357833008 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrite as N | mg/L | 3.48 | 3 | 3 | 6.1 | 6.2 | 89 | 89 | 80-120 | 0 | 30 | |

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## REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

# QUALIFIERS

Project: Tower, WI
Pace Project No.: 10358347

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## LABORATORIES

| | |
|---|---|
| PASI-M | Pace Analytical Services - Minneapolis |
| PASI-MT | Pace Analytical Services - Montana |

## ANALYTE QUALIFIERS

| | |
|---|---|
| AL | The lab does not hold A2LA accreditation for this parameter. |
| B | Analyte was detected in the associated method blank. |
| E | Analyte concentration exceeded the calibration range. The reported result is estimated. |
| H6 | Analysis initiated outside of the 15 minute EPA required holding time. |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Tower, WI
Pace Project No.: 10358347

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10358347001** | **1608TOWERMW16** | EPA 3020 | 429937 | EPA 6020B | 431485 |
| **10358347002** | **1608TOWERMW16D** | EPA 3020 | 429937 | EPA 6020B | 431485 |
| **10358347003** | **1608TOWERMW18D** | EPA 3020 | 429937 | EPA 6020B | 431485 |
| **10358347001** | **1608TOWERMW16** | EPA 245.1 | 429746 | EPA 245.1 | 430319 |
| **10358347002** | **1608TOWERMW16D** | EPA 245.1 | 429746 | EPA 245.1 | 430319 |
| **10358347003** | **1608TOWERMW18D** | EPA 245.1 | 429746 | EPA 245.1 | 430319 |
| **10358347001** | **1608TOWERMW16** | SM 2510B | 430853 | | |
| **10358347002** | **1608TOWERMW16D** | SM 2510B | 430853 | | |
| **10358347003** | **1608TOWERMW18D** | SM 2510B | 430853 | | |
| **10358347001** | **1608TOWERMW16** | SM 4500-H+B | 430697 | | |
| **10358347002** | **1608TOWERMW16D** | SM 4500-H+B | 430697 | | |
| **10358347003** | **1608TOWERMW18D** | SM 4500-H+B | 430697 | | |
| **10358347001** | **1608TOWERMW16** | SM 4500-S2-D | 429845 | | |
| **10358347002** | **1608TOWERMW16D** | SM 4500-S2-D | 429845 | | |
| **10358347003** | **1608TOWERMW18D** | SM 4500-S2-D | 429845 | | |
| **10358347001** | **1608TOWERMW16** | SM 4500-S H | 430947 | | |
| **10358347002** | **1608TOWERMW16D** | SM 4500-S H | 430947 | | |
| **10358347003** | **1608TOWERMW18D** | SM 4500-S H | 430947 | | |
| **10358347001** | **1608TOWERMW16** | SM 4500-NO3 H | 430242 | | |
| **10358347002** | **1608TOWERMW16D** | SM 4500-NO3 H | 430242 | | |
| **10358347003** | **1608TOWERMW18D** | SM 4500-NO3 H | 430242 | | |
| **10358347001** | **1608TOWERMW16** | ASTM D516 | 430254 | | |
| **10358347002** | **1608TOWERMW16D** | ASTM D516 | 430254 | | |
| **10358347003** | **1608TOWERMW18D** | ASTM D516 | 430254 | | |
| **10358347001** | **1608TOWERMW16** | SM 4500-NO2 B | 429639 | | |
| **10358347002** | **1608TOWERMW16D** | SM 4500-NO2 B | 429639 | | |
| **10358347003** | **1608TOWERMW18D** | SM 4500-NO2 B | 429639 | | |

10358347

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

| Section A Required Client Information: | | Section B Required Project Information: | | Section C Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Bristol Environmental Remediation Services, LLC | Report To: | Matt Faust | Attention: | |
| Address: | 111 W. 16th Avenue | Copy To: | | Company Name: | |
| Anchorage, AK 99501 | | | | Address: | |
| Email: | mfaust@bristol-companies.com | Purchase Order #: | | Pace Quote: | |
| Phone: | (907)743-9346 Fax: | Project Name: | Tower, WI | Pace Project Manager: | shawn.davis@pacelabs.com, |
| Requested Due Date: | | Project #: | | Pace Profile #: | 35445 |

Regulatory Agency

State / Location: WI

Requested Analysis Filtered (Y/N)

| ITEM # | SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique) | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | VOC by 8260 | EDB 8011 | GRO by WIGRO | Sulfate/Nitrate | Nitrate + Nitrite | Metals by 6020 | DRO by WIDRO | Sulfide by SM4500-S2-D | BTEX by 8260 | 6010 - Pb | Moisture/ Dry weight | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1L08TOWERMW1U | W | G | 8/8/14 | 1055 | ← | | | 4 | | X | X | | X | | | | | | | | X | X | X | | X | | | | MW-1U 001 |
| 2 | 1L08TOWERMW1UD | W | ↓ | ↓ | 1300 | ← | | | ↓ | | X | X | | X | | | | | | | | X | X | X | | X | | | | MW-1UD 002 |
| 3 | 1L08TOWERMW18D | W | ↓ | ↓ | 1330 | ← | | | ↓ | | X | X | | X | | | | | | | | X | X | X | | X | | | | MW-1BD 003 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Robert Beckman | 8/8/14 | 1430 | | 8-9-14 | 930 | 1.8 | 4 | 4 | 4 |
| | | | | | | | | | | |
| | | | | | | | | | | |

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Robert Beckman

SIGNATURE of SAMPLER: Robert Beckman DATE Signed: 8/8/14

| TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|

| Pace Analytical® | Document Name: **Sample Condition Upon Receipt Form** | Document Revised: 04Apr2016 Page 1 of 1 |
|---|---|---|
| | Document No.: **F-MN-L-213-rev.16** | Issuing Authority: Pace Minnesota Quality Office |

**Sample Condition Upon Receipt**

**Client Name:** Bristol Enviro. Remediation **Project #:**

**WO# : 10358347**

10358347

**Courier:** ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client

☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

**Tracking Number:** 7837 7278 4727

**Custody Seal on Cooler/Box Present?** ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No

**Optional:** Proj. Due Date: Proj. Name:

**Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other: plastic bags **Temp Blank?** ☑ Yes ☐ No

**Thermometer Used:** ☐ 151401163 ☑ 151401164 ☐ B88A912167504 ☐ B88A0143310098 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

**Cooler Temp Read (°C):** 1.8 **Cooler Temp Corrected (°C):** 1.8 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C **Correction Factor:** +0.0 **Date and Initials of Person Examining Contents:** KAC 8-9-16

**USDA Regulated Soil** (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

**If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.**

| | | | | COMMENTS: |
|---|---|---|---|---|
| Chain of Custody Present? | ☑ Yes | ☐ No | ☐ N/A | 1. |
| Chain of Custody Filled Out? | ☑ Yes | ☐ No | ☐ N/A | 2. |
| Chain of Custody Relinquished? | ☑ Yes | ☐ No | ☐ N/A | 3. |
| Sampler Name and/or Signature on COC? | ☑ Yes | ☐ No | ☐ N/A | 4. |
| Samples Arrived within Hold Time? | ☑ Yes | ☐ No | ☐ N/A | 5. |
| **Short Hold Time Analysis (<72 hr)?** | ☑ Yes | ☐ No | ☐ N/A | 6. |
| **Rush Turn Around Time Requested?** | ☐ Yes | ☑ No | ☐ N/A | 7. |
| Sufficient Volume? | ☑ Yes | ☐ No | ☐ N/A | 8. |
| Correct Containers Used? | ☑ Yes | ☐ No | ☐ N/A | 9. |
| -Pace Containers Used? | ☑ Yes | ☐ No | ☐ N/A | |
| Containers Intact? | ☑ Yes | ☐ No | ☐ N/A | 10. |
| Filtered Volume Received for Dissolved Tests? | ☐ Yes | ☐ No | ☑ N/A | 11. Note if sediment is visible in the dissolved container |
| Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT | ☑ Yes | ☐ No | ☐ N/A | 12. |
| All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC | ☑ Yes ☑ Yes ☐ Yes | ☐ No ☐ No ☐ No | ☐ N/A ☐ N/A ☑ N/A | 13. ☑ $HNO_3$ 1/1 ☑ $H_2SO_4$ 1/1 ☑ NaOH 1/1 ☐ HCl Sample # 1-3 Initial when completed: Lot # of added preservative: |
| Headspace in VOA Vials ( >6mm)? | ☐ Yes | ☐ No | ☑ N/A | 14. |
| Trip Blank Present? | ☐ Yes | ☐ No | ☑ N/A | 15. |
| Trip Blank Custody Seals Present? | ☐ Yes | ☐ No | ☑ N/A | |
| Pace Trip Blank Lot # (if purchased): | | | | |

**CLIENT NOTIFICATION/RESOLUTION** **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Matt Faust (email) Date/Time: 8/9/16

Comments/Resolution:

Double check required metals list 6020, as well as H2S test.

**Project Manager Review:** Shannon Davis **Date:** 8/9/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers).

# Intra-Regional Chain of Custody

Pace Analytical®
www.pacelabs.com

**Workorder:** 10358347 **Workorder Name:** Tower, WI **Owner Received Date:** 8/9/2016 **Due Date:** 8/23/2016

| Received at: | Send To Lab: |
|---|---|
| Pace Analytical Minnesota<br>1700 Elm Street<br>Suite 200<br>Minneapolis, MN 55414<br>Phone (612)607-1700 | Pace Analytical Billings MT<br>150 N Ninth Street<br>Billings, MT 59101<br>Phone (406)254-7226 |

**Report To:**
Shawn Davis

| Item | Sample ID | Sample Type | Collect Date/Time | Lab ID | Matrix | Preserved Containers: Other | SM4500-S2-D | SM 4500-S-H | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1608TOWERMW16 | PS | 8/8/2016 10:55 | 10358347001 | Water | | X | X | |
| 2 | 1608TOWERMW16D | PS | 8/8/2016 13:00 | 10358347002 | Water | | X | X | |
| 3 | 1608TOWERMW18D | PS | 8/8/2016 13:30 | 10358347003 | Water | | X | X | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |

| Transfers | Released By | Date/Time | Received By | Date/Time |
|---|---|---|---|---|
| 1 | Shawn Davis/Pace MPLS | 8-9-16 1330 | | |
| 2 | Fed Ex | | Mike Waters Pace | 8/10/16 1000 |
| 3 | | | | |
| 4 | | | | |

**Comments:** pH, conductance done in mpls

**Cooler Temperature on Receipt** 0.6 °C | **Custody Seal** (Y) or N | **Received on Ice** (Y) or N | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
*This chain of custody is considered complete as is since this information is available in the owner laboratory.*

| Pace Analytical | Document Name: **Sample Condition Upon Receipt Form** | Document Revised: 04Aug2016 Page 1 of 1 |
|---|---|---|
| | Document No.: **F-MT-C-184-Rev.10** | Issuing Authority: Pace Montana Quality Office |

**Sample Condition Upon Receipt**

**Client Name:** Pace-MT **Project #:** 1035 8347

**Courier:** ☒Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☐Pace ☐Other:

**Tracking Number:** 6751 5818 8004

**Custody Seal on Cooler/Box Present?** ☒Yes ☐No **Seals Intact?** ☒Yes ☐No **Optional:** Proj. Due Date: Proj. Name:

**Packing Material:** ☒Bubble Wrap ☐Bubble Bags ☐None ☐Other: **Temp Blank?** ☒Yes ☐No

**Thermometer Used:** ☒160285052 ☐140279186 **Type of Ice:** ☒Wet ☐Blue ☐None ☐Samples on ice, cooling process has begun ☐NA

**Cooler Temp Read:** 1.1 **Date and Initials of Person Examining Contents:** MW 8/10/16

**Cooler Temp Corrected:** 0.6 **Biological Tissue Frozen?** ☐Yes ☒No

Temp should be above freezing to 6°C

| | | | | Comments: |
|---|---|---|---|---|
| Chain of Custody Present? | ☒Yes | ☐No | ☐N/A | 1. |
| Chain of Custody Filled Out? | ☒Yes | ☐No | ☐N/A | 2. |
| Chain of Custody Relinquished? | ☒Yes | ☐No | ☐N/A | 3. |
| Sampler Name and Signature on COC? | ☐Yes | ☒No | ☐N/A | 4. |
| Samples Arrived within Hold Time? | ☒Yes | ☐No | ☐N/A | 5. |
| **Short Hold Time Analysis (<72 hr)?** | ☐Yes | ☒No | ☐N/A | 6. |
| **Rush Turn Around Time Requested?** | ☐Yes | ☒No | ☐N/A | 7. |
| Sufficient Volume? | ☒Yes | ☐No | ☐N/A | 8. |
| Correct Containers Used? -Pace Containers Used? | ☒Yes ☒Yes | ☐No ☐No | ☐N/A ☐N/A | 9. |
| Containers Intact? | ☒Yes | ☐No | ☐N/A | 10. |
| Filtered Volume Received for Dissolved Tests? | ☐Yes | ☐No | ☒N/A | 11. Note if sediment is visible in the dissolved container. |
| Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: H2O | ☒Yes | ☐No | ☐N/A | 12. |
| All containers needing acid/base preservation have been checked? | ☒Yes | ☐No | ☐N/A | 13. ☐$HNO_3$ ☐$H_2SO_4$ 3/3 ☐NaOH ☐HCl Sample # 001-003 |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) | ☒Yes | ☐No | ☐N/A | |
| Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐Yes | ☒No | | Initial when completed: MW Lot # of added preservative: |
| Headspace in VOA Vials ( >6mm)? | ☐Yes | ☐No | ☒N/A | 14. |
| Trip Blank Present? | ☐Yes | ☐No | ☒N/A | 15. |
| Trip Blank Custody Seals Present? | ☐Yes | ☐No | ☒N/A | |
| Pace Trip Blank Lot # (if purchased): NA | | | | |

**CLIENT NOTIFICATION/RESOLUTION** **Field Data Required?** ☐Yes ☐No

Person Contacted: Date/Time:

Comments/Resolution:

**Project Manager Review:** Shauna Davis **Date:** 8/10/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

# Intra-Regional Chain of Custody

Pace Analytical®
www.pacelabs.com

**Workorder:** 10358347 **Workorder Name:** Tower, WI **Owner Received Date:** 8/9/2016 **Due Date:** 8/23/2016

| Received at: | Send To Lab: |
|---|---|
| Pace Analytical Minnesota<br>1700 Elm Street<br>Suite 200<br>Minneapolis, MN 55414<br>Phone (612)607-1700 | Pace Analytical Billings MT<br>150 N Ninth Street<br>Billings, MT 59101<br>Phone (406)254-7226 |

**Report To:**
Shawn Davis

| Item | Sample ID | Sample Type | Collect Date/Time | Lab ID | Matrix | Preserved Containers: Other | Preserved Containers: Unpreserved | SM 4500-H+B | SM 4500-S2-D | SM 4500-S-H | SM 2510 | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1608TOWERMW16 | PS | 8/8/2016 10:55 | 10358347001 | Water | 1 | | X | X | X | X | |
| 2 | 1608TOWERMW16D | PS | 8/8/2016 13:00 | 10358347002 | Water | 1 | | X | X | X | X | |
| 3 | 1608TOWERMW18D | PS | 8/8/2016 13:30 | 10358347003 | Water | 1 | | X | X | X | X | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |

| Transfers | Released By | Date/Time | Received By | Date/Time |
|---|---|---|---|---|
| 1 | Shawn Davis/Pace Sample | 8-12-16 1500 | | |
| 2 | FedEx | | Mathew Price | 8/13/16 1030 |
| 3 | | | | |
| 4 | | | | |

**Comments**

Sulfide, H2S bottle already Sat 8/11

**Cooler Temperature on Receipt** 1.3 °C **Custody Seal** (Y) or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

| Pace Analytical | Document Name: **Sample Condition Upon Receipt Form** | Document Revised: 04Aug2016 Page 1 of 1 |
|---|---|---|
| | Document No.: **F-MT-C-184-Rev.10** | Issuing Authority: Pace Montana Quality Office |

**Sample Condition Upon Receipt**

**Client Name:** Pace MN **Project #:** 10358347

**Courier:** ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

**Tracking Number:** 6751 5818 9445

**Custody Seal on Cooler/Box Present?** ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No **Optional:** Proj. Due Date: Proj. Name:

**Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☒ Yes ☐ No

**Thermometer Used:** ☒ 160285052 ☐ 140279186 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun ☐ NA

**Cooler Temp Read:** 1.8 **Date and Initials of Person Examining Contents:** 8/13 MH

**Cooler Temp Corrected:** 1.3 **Biological Tissue Frozen?** ☐ Yes ☒ No

Temp should be above freezing to 6°C

| | | | | **Comments:** |
|---|---|---|---|---|
| Chain of Custody Present? | ☒ Yes | ☐ No | ☐ N/A | 1. |
| Chain of Custody Filled Out? | ☒ Yes | ☐ No | ☐ N/A | 2. |
| Chain of Custody Relinquished? | ☒ Yes | ☐ No | ☐ N/A | 3. |
| Sampler Name and Signature on COC? | ☐ Yes | ☐ No | ☒ N/A | 4. |
| Samples Arrived within Hold Time? | ☒ Yes | ☐ No | ☐ N/A | 5. |
| **Short Hold Time Analysis (<72 hr)?** | ☐ Yes | ☒ No | ☐ N/A | 6. |
| **Rush Turn Around Time Requested?** | ☐ Yes | ☒ No | ☐ N/A | 7. |
| Sufficient Volume? | ☒ Yes | ☐ No | ☐ N/A | 8. |
| Correct Containers Used? | ☒ Yes | ☐ No | ☐ N/A | 9. |
| -Pace Containers Used? | ☒ Yes | ☐ No | ☐ N/A | |
| Containers Intact? | ☒ Yes | ☐ No | ☐ N/A | 10. |
| Filtered Volume Received for Dissolved Tests? | ☐ Yes | ☐ No | ☒ N/A | 11. Note if sediment is visible in the dissolved container. |
| Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT | ☒ Yes | ☐ No | ☐ N/A | 12. |
| All containers needing acid/base preservation have been checked? | ☐ Yes | ☐ No | ☒ N/A | 13. ☐ $HNO_3$ ☐ $H_2SO_4$ ☐ NaOH ☐ HCl Sample # NA |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) | ☐ Yes | ☐ No | ☒ N/A | |
| Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water) | ☐ Yes | ☒ No | | Initial when completed: Lot # of added preservative: |
| Headspace in VOA Vials ( >6mm)? | ☐ Yes | ☐ No | ☒ N/A | 14. |
| Trip Blank Present? | ☐ Yes | ☐ No | ☒ N/A | 15. |
| Trip Blank Custody Seals Present? Pace Trip Blank Lot # (if purchased): NA | ☐ Yes | ☐ No | ☒ N/A | |

**CLIENT NOTIFICATION/RESOLUTION** **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

**Project Manager Review:** Shauna Davis **Date:** 8/15/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)